

- (3) DNA having a nucleotide sequence of any of SEQ ID NOs: 166490 to 167042, or DNA having a nucleotide sequence of any of SEQ ID NOs: 167043 to 173124; and
- (4) DNA having a nucleotide sequence of any of SEQ ID NOs: 173125 to 174603, or DNA having a nucleotide sequence of any of SEQ ID NOs: 174604 to 190810;
- (a-2) independently from the step (a-1), hybridizing cDNA or cRNA prepared from the industrial yeast to a DNA array comprising one or more of DNAs, wherein each DNA is selected from at least one group of (1) to (4):
- (1) DNA consisting of a nucleotide sequence of an open reading frame of the genome sequence of an industrial yeast which encodes an amino acid sequence having 70 to 97% identity to an amino acid sequence encoded by the gene of *Saccharomyces cerevisiae*, or a nucleotide sequence complementary to the above nucleotide sequence, or a nucleotide sequence of continuous 10 or more nucleotides selected from the above nucleotide sequences;
- (2) DNA consisting of a nucleotide sequence of the genome sequence of an industrial yeast other than from open reading frames which consists of a nucleotide sequence having 60 to 94% identity to the nucleotide sequence of the gene of *Saccharomyces cerevisiae*, or a nucleotide sequence complementary to the above nucleotide sequence, or a nucleotide sequence of continuous 10 or more nucleotides selected from the above nucleotide sequences;
- (3) DNA having a nucleotide sequence of any of SEQ ID NOs: 166490 to 167042, or DNA having a nucleotide sequence of any of SEQ ID NOs: 167043 to 173124; and
- (4) DNA having a nucleotide sequence of any of SEQ ID NOs: 173125 to 174603, or DNA having a nucleotide sequence of any of SEQ ID NOs: 174604 to 190810;
- wherein the industrial yeast of (a-2) has been cultured in a different condition from the culture condition for the industrial yeast of (a-1); and
- (b) selecting a gene wherein hybridization intensity thereof to the DNAs of any of (1) to (4) at the step (a-1) is significantly different from hybridization intensity thereof at the step (a-2).
- 29.** A gene obtained by the screening method of claim 28.
- 30.** The gene according to claim 9, characterized in that concentration of sulfite in a culture medium of an industrial yeast increases when the gene is expressed in the yeast.
- 31.** A nucleic acid encoding a polypeptide of any one of the following i) and ii):
- i) a polypeptide having the amino acid sequence represented by SEQ ID NO:3, and
- ii) a polypeptide having an amino acid sequence wherein one or more amino acid residue(s) is deleted from, substituted for and/or added to the amino acid sequence represented by SEQ ID NO:3, and having an activity to increase concentration of sulfite in a culture medium of an industrial yeast when the gene is expressed in the yeast.
- 32.** The nucleic acid according to claim 31, which is selected from the following a) and b):
- (a) a nucleic acid having the nucleotide sequence represented by SEQ ID NO:1; and
- (b) a nucleic acid having a nucleotide sequence which hybridizes to the nucleotide sequence complementary to the nucleotide sequence represented by SEQ ID NO:1 under a stringent condition, and encodes a polypeptide having an activity to increase concentration of sulfite in a culture medium of an industrial yeast when the gene is expressed in the yeast.
- 33.** A recombinant vector containing the gene of claim 9.
- 34.** A transformant comprising the recombinant vector of claim 33.
- 35.** The transformant according to claim 34, which is a yeast of genus *Saccharomyces*.
- 36.** A polypeptide of any one of the following i) and ii):
- i) a polypeptide having the amino acid sequence represented by SEQ ID NO:3; and
- ii) a polypeptide having an amino acid sequence wherein one or more amino acid residue(s) is deleted from, substituted for and/or added to the amino acid sequence represented by SEQ ID NO:3, and having an activity to increase concentration of sulfite in a culture medium of an industrial yeast when the gene is expressed in the yeast.
- 37.** The polypeptide according to claim 36, which is encoded by a nucleic acid selected from the following a) and b):
- (a) a nucleic acid having the nucleotide sequence represented by SEQ ID NO:1; and
- (b) a nucleic acid having a nucleotide sequence which hybridizes to the nucleotide sequence complementary to the nucleotide sequence represented by SEQ ID NO:1 under a stringent condition, and encodes a polypeptide having an activity to increase concentration of sulfite in a culture medium of an industrial yeast when the gene is expressed in the yeast.
- 38.** A method for producing an alcohol or an alcoholic beverage, comprising culturing the transformant of claim 34.
- 39.** A breeding method of yeast which is suitable for the production of an alcohol or an alcoholic beverage, characterized in that, expression of the gene of claim 9 is controlled.
- 40.** The breeding method according to claim 39, wherein the yeast belongs to the genus *Saccharomyces*.
- 41.** Yeast obtained by the breeding method of claim 39.
- 42.** A method for producing an alcohol or an alcoholic beverage comprising culturing the yeast of claim 41.
- 43.** An alcohol or an alcoholic beverage which is produced by the producing method of claim 42.
- 44.** The gene according to claim 29 characterized in that concentration of sulfite in a culture medium of an industrial yeast increases when the gene is expressed in the yeast.
- 45.** A recombinant vector containing the gene of claim 29.
- 46.** A recombinant vector containing the nucleic acid of claim 21.
- 47.** A breeding method of yeast which is suitable for the production of an alcohol or alcoholic beverage, characterized in that, expression of the gene of claim 29 is controlled.